

**ABSTRACT**

Present invention pertains to radiation detection techniques and can be used for increasing sensitivity and precision when recording radiation intensity as well as for increasing dynamic range of radiation intensities to be detected. In first embodiment, detector includes photodiode and load connected in series. Load is connected to photodiode by its signal output while it is connected on other side to common line. Detector further includes transistor and request pulse generator. Second electrode of photodiode is connected to first electrode of transistor which has its control electrode connected to output of request pulse generator. Third electrode of transistor is connected to common line. In second and third embodiments, radiation detector further includes radiation-sensitive member connected on one side to voltage supply line, as well as load connected on one side to common line. Detector further includes transistor and pulse generator, and also includes capacitor in one of embodiments.--